

ABSTRACT

A camshaft in which at least two completely machined individual cams are fixedly mounted on a shaft in predetermined angular positions, whereby the shaft may consist in particular of an outside shaft and an inside shaft arranged concentrically in the former, is to be manufactured in such a way that remachining of the joined camshaft is not necessary.

To this end, a manufacturing method is proposed in which the following manufacturing steps are provided in chronological order:

- the at least two cams (1, 2, 4) sitting fixedly on the shaft are detachably combined to form a machining module before being mounted, whereby the first cams (1, 2) which are immovable with respect to one another on the finished camshaft are aligned in an arrangement corresponding to the final arrangement on the shaft,
- of the radial circumferential surfaces of the cams, at least the cam contours of the at least two cams (1, 2, 4) are completely machined within the machining module,
- the completely machined cams (1, 2, 4) are fixedly mounted on the shaft within the machining module,
- the first cams (1, 2) which are immovable with respect to one another on the finished camshaft are fixedly joined to the shaft in their fixed arrangement at least with regard to their angular position within the machining module,
- the detachable joining of the cams (1, 2, 4) within the machining module is separated, and any positioning aids and/or joining aids (3, 5) that may optionally be used are removed.

(Figure 1)